Reliable and Secure Group Communication

Group Communication

The Novel Ideas

? Developing the infrastructure needed to support true peer-to-peer communication

? Secure group communication that is peer-to-peer and based on crypto algorithms that are provably secure

? Reliable multicast capabilities that are scalable to the Internet

? Flexible message delivery options in terms of reliability and ordering

Impact and Connections

? IMPACT:
- Improved communication infrastructure for collaborative applications enabling truly peer-to-peer applications
- Many-to-many group communication that scales to the Internet
- A secure group layer that creates an SSL equivalent for group communication
- Flexibility to implement a broad range of application requirements.

? CONNECTIONS: Pervasive Collaborative Computing Environment

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Milestones/Dates/Status

? The primary goal of this project is the development and implementation of group communication capabilities that are reliable and secure

	Year
? Reliable Multicast	
- Development of InterGroup	1-2
- Beta release of the InterGroup protocol	2
- Testing and implementation of additional feature	2-4
? Secure Group Layer:	
- Proofs of security for the cryptographic algorithms	1-2
- Implementation of protocols	2-4
? Improvements	
- Enhancements to scalability and features	5

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